

he had denied the presumptive right of grumbling, which the architect inherited as his birthright in all ages. He thought Vitruvius was recovering all his ancient estimation. In a former course he had detailed the importance of the various discoveries and elucidations of his precepts, achieved chiefly by English enterprise and science in late years, and which it would be desirable to appropriate before they were pirated by the foreigner. The last of these (and of the highest importance) was the interpretation of the "scamilli impares," mathematically ascertained by Mr. Penrose. He produced the most recent commentators on Vitruvius (the last of twenty-three of all nations who had attempted it since 1520), namely, Amati, 1829, and Marini, 1837. By slow degrees this author, now nearly 1,900 years old, was becoming better understood. It appeared from the latter that there were to be found in the various libraries of Europe 53 original manuscript copies of the author. Every student should revere Vitruvius, and at least possess the accessible translation of Mr. Gwilt.

He proceeded to comment on the great principles of the art, as laid down in the 2nd chapter, 1st book *Taxis*, order,—2 *Diathe-sis*, arrangement or disposition,—and 3 *Economia*, in the enlarged as well as the financial sense,—and *Thematismos*. These characters constituted design in architecture: with reference to the first, it is remarkable, that before him Aristotle had pronounced the effect of the art to reside in *order* and in *magnitude*; it was probably a Greek axiom. Order is the distinction of nature's productions; and the highest inventions of man assumed the same divine attribute; order affects us in the combined movement of military array, as contrasted with a mob; as the regular avenue contrasted with the wild disorder of the forest. All the great schools of architecture prescribed order and regularity even in small buildings; and this precept (strained perhaps too far in the seventeenth) had given rise to the picturesque school, which, aided by the romantic taste of part of the last century and the beginning of this, had affected the casual and irregular; by them the heterogeneous tastes and requirements of 800 years in the concrete cathedral, or the castellated mansion, were applauded and even imitated; but the painter will warn us of the difficulty of success in these groupings, in which eurythmia, the balance of quantities, and the apposite and felicitous contrasts of form and feature, are the acquirements of his life; and can no more be affected by the unskillful than the ease and grace of good breeding by the clown. However opposed the partisans of order and the picturesque as to minor productions of the art, there could be little doubt of their adoption of the former in all solemn and extensive works. It is remarkable, that in the paintings of Pompeii we discover evidences of a picturesque school, in the architectural representation of which there was variety or balanced points, but neglect of symmetry.

The second head was *Diathe-sis*—arrangement of the plan and disposition of the elements of the design—the grand legislation of the whole and the parts in all their purposes and variety of intention; here it is that the wisdom, taste, and tact of the architect ordains and institutes every provision and requirement, so that convenience, health, climate, access, egress, sewage, light, use, beauty and character, consistency and propriety, should enable it to work as a sentient body, and, like a fossil organic creature of nature, possess every vital provision but breath.

The creation of such a body by experience and invention from a chaos, and the production of a harmonious result upon a white sheet of paper, required originality of mind; the architect must possess the tactics of a general to oppose the difficulties and varying requirements of the site and surrounding circumstances; and, according to their variety, so ought his design to present an equal novelty in the arrangement and disposition of every case. He illustrated the process of thought by tracing the consideration and motives of the Taylor Institution and University Galleries at Oxford: that building occupied a site 260 feet by 100 feet. At the angle of St. Giles's and Beaumont-streets, the small end towards St. Giles's (abutting on houses) required an imposing front in approaching Oxford from the

west; the other extremity in Beaumont-street abutted on a row of modern houses, 40 feet high. It was then obvious that the usual pyramidal front (placed lengthways of the site, and diminishing with wings at the extremities) could not be resorted to; the disposition, therefore, was reversed, the lowest part of the building being in the centre; the edifice was disconnected from its ordinary neighbours by raising the whole site on an artificial terrace, of 8 feet high, in a rustic character; this latter enabled him to dispose of one of the four floors required in the elevation,—two were disposed in the height of the order, the upper central windows of which breaking through the entablature in arched heads, enabled him to light his attic with the upper portions, these large windows giving a collegiate and public character to the edifice, and reducing the four windows, or floors, to two. This disposition, though unusual, had, after due deliberation, been preferred by the judges. So the victory (if so it was) had been achieved like that of Trafalgar, by reversing the ordinary tactics. He apologized for illustrating his argument by a work of his own, on account of his having more intimately felt in this example the difficulties and the responsibilities of the architect and general.

Economia was the third great principle of design enunciated by Vitruvius; namely, the contrivance in which wisdom and beauty were united with that admirable fitness and economy exhibited in the productions of the great artist Nature, in all of which we find eccentricities and apparent caprices arising naturally from peculiar wants and uses united with corresponding variety and beauty. These coincidences are delightful to trace in the works of nature and of art; the whimsical processes of the crustaceous tube, the leaf, the flower, or corrugated stone; or the crocketed spire, in which we discover that what appears to be only a florid enrichment of architecture, is in fact the stair by which the master may ascend on its sides to repair its surface or adjust the vane; or the lizard on the handle of the Greek vase, which, when we use it, turns out to be, not the accident or caprice of the artist, but the nicest possible adjustment to the gripe and movement of the thumb and fingers.

Thus, what appears a superfluity, is in fact an essential: the multiple purpose of every feature of design is the delight and the justification of the architect in his plan and in his orthography.

In his plan the corridor, like the great aorta, should give life and communication to every apartment of his building. The sure test of a good plan is the small proportion of the passages to the available rooms in the sum of superficial contents. [The difficulties of this geometrical art could only be known to those who had attempted the unexceptionable plan. The party-wall uniting all the chimneys, giving strength to the building, security on either side against fire, and passages for the flues, was the epitome of this kind of economy—the economy by which all the wants and uses were united with beauty and proportion traced in the wise structures of the greatest masters. Everywhere enough, but nothing over; and, when ventilation, light, drainage, with the acute, sparing, but sufficient use and adaptation of all materials, provisions, and requirements, were found in the examination of a building, a kind of sublime was felt; and we then understood the figure of speech which calls the great Creator the architect of nature.]

Economy, in the lower sense, was exhibited by the architect who, together with sufficient beauty, furnished at the same time the largest available accommodation, and both at the smallest cost. The comparison of the Taylor Institution and University Galleries, with other contemporary buildings, might be cited as advantageous in this particular, containing as it did 39,000 feet superficial, of available accommodation, at the cost of 52,000*l*.

The works of Sir C. Wren might be quoted as the examples of the largest products, at the smallest cost, and it would be easy to show that at the same time that he was the most magnificent architect of modern times, he was beyond comparison the most economical also.

Character and fitness of style (*Thematismos*) was the fourth great principle enjoined by Vitruvius,—sadly transgressed in modern build-

ings, the destination of which it would be often impossible for the stranger to pronounce upon from their external appearance. One great occasion of this was the nationality which unconsciously accompanied the designs of various countries. In the great military empire of Russia, all buildings had the aspect of barracks,—in France, till now monarchy, of Royal palaces; in papal Rome, all were ecclesiastical; amongst the nomade Turks, all was tent fashion. In domestic England, domesticity was universal, and the barracks in Birdcage-walk were hardly distinguishable from the domestic houses in Regent's-park. Our churches, public offices, and banks, look like domestic habitations. He produced the town house at Vicenza, by Palladio, and the Louvre, by Perrault, as the finest examples of correct appropriation, and significance of character.

The Dream of Poliphilus, the Palace of Architecture, Chaucer's Temple of Mars or House of Fame, the Arabian Nights, Sir C. Wren's descriptions, the eloquent Moller, and the consultation of poetic writers generally, should be used to stimulate the proper sentiment of our art.

In the next he should proceed to comment on the principle of proportion as laid down by Vitruvius.

PROPOSED REVISION OF THE METROPOLITAN BUILDINGS ACT.

As the new Metropolitan Buildings Act, now two years in embryo, will probably be produced in the ensuing session of Parliament, it may be well to recall the recollection of the profession and the building interest in general to the position of the present law, and to the proposed alterations suggested by the Bill laid on the table of the House of Commons at the close of the last session. The delay which has occurred has certainly been beneficial in cooling down many prejudices, and in giving a full opportunity for ascertaining the working of the machinery erected by the present law; and though it is well known and admitted that this machinery has not worked so smoothly as could be desired, and has, indeed, been in danger of a dead lock, yet the principle originally established of constituting a board of appeal in building matters, and also a court of record, from which much useful statistical information will eventually be obtained, has met with general approval.

The want of this establishment was the great defect of the Act of 14th Geo. III., and though it was also objected to it, that under this Act a district surveyor could scarcely venture to give a certificate of a building being erected fully in accordance with its provisions,—the same objection might be taken to the present Act, where the requirements to render a building a model house according to law are increased to a still greater extent. It is curious to observe how this difficulty has been felt in each succeeding revision of the Act, and how necessary it has been found in all attempts at improvement to cast overboard the heavy lumber of detailed restrictions, and to reduce the enactments to as few and as concise regulations as can be formed,—to work out, in fact, the principle of modern legislation, that private interests and rights should only be so far limited and controlled as they interfere, or come in contact, with the interests of the community at large. The revised Bill is an instance of this, and the suggestions which have been subsequently made carry out the principle still further. How different is this from the first draught of the Building Act of 1844! wherein we all remember with dismay that the schedules were framed with the minuteness of a specification, and the scantlings of joists, quarters, and rafters were detailed, down to 4 by 2*½*.

Some of these absurdities disappeared, but enough still remain in the existing Act to require a remodelling of the whole; or, in the words of the preamble of the new Bill, whereas the provisions of the Act 7 and 3 of her present Majesty, and a subsequent Act amending the same, "have been found insufficient for the objects for which they were designed," the said Acts are repealed, and other provisions made in lieu thereof.

It is well known that a slumbering dissatisfaction was soon felt by all parties at the